# ANTHROPOLOGICAL ANALYSIS OF THE HUMAN OSTEOLOGICAL REMAINS FROM THE NICULITEL-CORNET SITE 

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Keywords: Anthropological analysis, pathology, blunt force trauma, burnt human bones.
Abstract. this article deals with the human osteological remains discovered in some of the archaeological complexes of Niculitel-Cornet site. There have been analysed at least nine individuals (five females, one male, and three with unknown sex) with missing bones or fragments, both from ancient times or lost during recovery. The age at death for almost all the skeletons can be framed in the timetable infans II-adultus. Interesting cases of blunt force traumas and partially burnt bones have been studied, along with cases of pathology (hyperostosa porotica, cribra orbitalia, secondary kyphosis and scoliosis etc.).

## Methodology

Osteological fragments from different archeological complexes of the Niculiţel-Cornet site were analyzed, keeping the original notes and numbering each identified skeleton. Unfortunately, due to the lack of detailed archaeological information, the bones of each individual could not be localized in the archeological complexes.

Papilian's anatomical atlas (1974), White's the osteological atlas (1991) and other books regarding the osteology of the sub-adults (Scheuer, Black 2004; Baker, Dupras, Tocheri 2005) were used for the identification and description of the human bones. Morphological features of the ilium and mandible were used for sex determination of sub-adults skeletons (Schutkowski 1993, Mittler, Sheridan 1992, Loth, Henneberg 2001).

Age estimation of children skeletons has been achieved by studying the teeth eruption, measuring the long bones and the stages of epiphyseal union (Ubelaker 1980, Stloukal, Hanakova 1978; Byers 2005; Baker, Dupras, Tocheri 2005). The age at death of the adult individuals was established using teeth wear, cranial suture closure and epiphyseal union (Brothwell 1981, Byers 2005); cranial and post-cranial features, mainly the pelvis were used for sex determination (Houghton 1974, White 1991).

Stature of sub-adults was computed using maximum lengths of humerus, radius, femur, and tibia based on Visser's formula (1998).

Ortner's book (2003) was used for identification and description of the pathological elements; for the other traumas the following were used: Martin, Frayer (1997), Koval, Zuckerman (2002), Wapler, Crubezy, Schultz (2004) and Pope (2007).

## S VI, square 4-5, -1.20 m

## Skeleton 1:

The skeleton is well-preserved and almost complete, the bones showing significant amount of calcareous crust. The skull was partially restored due to the missing fragments. On the frontal bone there are two fracture lines forming an approximate $X$ shape. One line started nearby glabella and stopped on the lateral left over the bregma, and the other one started from an area between the left frontal eminence and left temporal line and stopped near the left temporal line. There is a triangle-shaped area from the glabella to the left zygomatic side of the frontal, which is missing together with a smaller area from the right side. There are also traces of an old crack, funnel-shaped, on the frontal bone, possibly due to a blunt force trauma. The left parietal
is also crossed by two fracture lines, in X shape, starting near the parietal eminence, missing the blown fragment from the squama (Fig. 1a-b; 2a).

There is a circular area $(20 \times 25 \mathrm{~m})$ that is missing a bone fragment at 15 mm from the mastoid angle of the right parietal. This area has the funnel-shaped margins on the ectocranial surface, and it was probably produced perimortem with a blunt object. Radiating fracture lines start from this area. There is no post-fracture healing reaction, which leads to the conclusion that the person had not survived the trauma.

Also, at the right parietal (medial from parietal eminence) on one of the above fracture lines there are small missing pieces of the cranial vault with traces from a pointed object.

The right lateral side of the occipital bone is missing, both temporal bones are present, but the left has old splits of squama, and the mastoid process has a green impregnation from a bronze object. On the lambdoid suture there are numerous wormians bones.

Only the right side of the mandible is present (starting from the canines), molars 1 and 2 were used as sample for ancient DNA analysis, and the $3^{\text {rd }}$ molar has the entire crown in the tooth socket.

Scapular girdle is represented by fragmentary right scapula, and shafts of clavicles. Proximal epiphysis from the left humerus is missing, and the capitulum of the right is broken. Proximal metaphyses of the right radius and ulna were destroyed during the excavation and the iliac crest from the right ilium share the same situation.

The right femur is almost complete, but without femoral head and a piece of the medial condyle; the left one keeps a fragment of lateral condyle and the proximal metaphysis is missing, all of these missing parts having been destroyed during the excavation. The distal epiphysis of the right tibia and both of the epiphyses of the left one are missing, the fibulas have only the proximal methapysis, all the broken pieces having been destroyed during excavation.

Sexual features of the bones show a female: small mastoid process, pointed frontal and parietal eminences, the supraorbital margin is sharp, there is no occipital protuberance, and the great sciatic notch is large (angle of $>90^{\circ}$ ).

The capitulum, trochlea and lateral epicondyle from humerus are fused, but the acetabular Y, iliac crest and antero-inferior spine from the inominate bone are not fused, which indicates an estimated age of death of 14-15 years (the maximum length of the long bones also indicates an age at death of more than 14 years old).

Stature is $146.14 \pm 12.4 \mathrm{~cm}$, computed according to the maximum length of the femur.
Multiple blunt force traumas could indicate the cause of death: one blow to the lateral side of the right parietal (which caused the dislocation of a cranial vault fragment), another one near the left frontal eminence, and another possible two (on the lateral side of the left parietal and in the glabella area); for the last two of them an accurate identification is impossible because of the missing part of the skull. It's also important to observe the absence of large portions of the cranial vault and a trace of a possible attempt "to open" the cranial vault with a pointed object on the right parietal. Also, some long bones and fragments of them are missing, maybe due to the archaeological excavation or to the perimortem manipulation.

## Skeleton 2:

The bones are well preserved but with calcareous crust. From the skull, only the half right side of mandible is present, with canine and first premolar in situ; the first molar was sampled for ancient DNA analysis.

The postcranial skeleton has the half lateral of the right clavicle, right humerus without distal epiphysis and left humerus without both epiphyses. The left ulna and radius are missing the distal third. The pelvic girdle has the illium and ischion, the left femur has only the distal half, and also both of the femoral heads and right calcaneum are present.

The great sciatic notch (angle of $<90^{\circ}$ ) and the flat auricular surface indicate a male.

Age estimation was established to about 13-14 years old, according to the suture stage of acetabular Y , the maximum length of humerus and radius and the union stage of humerus.

Stature is $137.20 \pm 12.5 \mathrm{~cm}$, computed according to the maximum length of humerus.
The right humerus is shorter than the left one ( 235 mm for right and 240 for left), it also shows a little curve toward anterior and lateral and thickness of shaft (Fig. 2b-c). On both humeri and on the lateral side of the femoral neck some porosity areas can be observed. The proximal metaphysis of the right humerus has a bigger diameter with a depression (depth of 3-4 mm ) in the middle. The right humeral head has a deformed surface with a granular aspect and enthesophytes, and a depression in the anterior side of the bicipital groove and the greater and lesser tubercle (Fig. 4a-b).

In conclusion, the left humerus could belong to a different skeleton or most probably the deformation may have congenital or traumatic causes occurred in the early years of life.

## S K II, square 4-5, -1.15 m, dwelling

There were identified human bones from four skeletons:
Skeleton 1: left incomplete scapula, lateral third of the clavicle, proximal half of the left ulna without epiphysis. The right femur is missing the upper region at the level of lesser trochanter and also the inferior third.

The bones belong to a child (infans II); sex is undeterminable.
Skeleton 2: a quarter from the lateral side of the left clavicle, the superior quarter of the left radius and right coxa with the lateral side of the acetabulum and the body of the illium. Gracility of bones shows a female of 25-30 years of age (medial epiphysis of the clavicle is partially fused). However it is very possible that these bones belong to two or three skeletons.

Skeleton 3: is represented by a skull with old fragmentation on the right side and modern fragmentation on the rest. The anterior side of frontal is missing, but the right supra-orbital margin with zygomatic process is present. The zygomatic is present partially on the left side, being articulated with the temporal bones, and the occipital bone is also fragmentarily recovered (Fig. 3a-b).

Although it is difficult to assert, the cranial features indicate a female skeleton.
Skeleton 4: is represented by a fragment of the frontal and the maxillae with old cracks. From the frontal, a triangular shape piece with coronal suture is present. A crack (possibly a fracture) is crossing the squama obliquely from left to right. There are two fragments separated in the soil, as one can see from the deposits of calcareous crust which are different on both of the fragments.

These deposits of calcareous crust are large on the ectocranium, but endocranially there are only few.

Ectocranially, the frontal presents a large surface of exfoliation, and the diploë is present only on the right side in a triangle-shaped area. On the exfoliated area the calcareous crust is very big and on the left side it also integrates small fragments of ribs. The bone has been subjected to fire, which gave it a dark brown and black color and exfoliated the diploë. Endocranially there are no traces of fire, a proof that the skull was complete during the exposure to heat (Fig. 4f).

The maxillary bones are present: the right half with a piece of the sphenoid, and the left half has all the pieces to the canine alveoli.

Dentition:

- |  | $\mathrm{M}_{2}$ | $\mathrm{M}_{1}$ | $\mathrm{Pm}_{4}$ | $\mathrm{Pm}_{3}$ | C | $\mathrm{I}_{2}$ | $\mathrm{I}_{1}$ | $/$ | $\mathrm{I}_{2}$ | $/$ | $/$ | $/$ | 1 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

The third molar is missing, most probably due to congenital causes, as it can be assumed from the shape of the maxilla. All the broken fragments are ancient, with a significant calcareous crust.

All teeth, except $\mathrm{M}_{2}$ were exposed to fire and only $\mathrm{Pm}_{4}$ and $\mathrm{M}_{1}$ partially have the crowns (showing only email exfoliation); in the other cases only the roots were preserved. The color of the teeth, alveoli and anterior side of the maxilla is black or dark black, the same color with the edge of the preserved zygomatic process. The oral cavity was not affected by the exposure to high temperatures (Fig. 4c-e).

Dental wear indicates a young adult or adolescent and the sex is indeterminable ${ }^{1}$.

## Square IV D

Skeleton 1: represented by a cranial vault with some missing parts due to excavation: the anterior half of the left parietal, the mastoid angle of the right parietal with the squama of the temporal, the right half and basal side of the occipital, some fragments of the maxillary and a piece from the left nasal bone (Fig. 5a-d). From postcranial skeleton the following are preserved: a proximal quarter of right radius, fragments of the illium, vertebras C7-T4, a body of the thoracic vertebra, vertebras L2-L5 and the first sacral vertebra. The femurs have old cracks on the epiphyses, the right tibia without distal epiphysis and the proximal half on the left one, the proximal half of the right fibula and the left without epiphysis.

Cranial and pelvic features show a female and preauricular sulcus indicates at least one birth. Closure of cranial sutures indicates an adult about 25-30 years old.

Pathology: lumbar vertebras L3 and L4 are fused; L3 is asymmetrically collapsed in the middle and it's 14 mm high; inside, the limit between the vertebras is hard to see and on the inferior margin and also on the superior margin of L4, on the right side, and also on the superior margin of L5, there are some huge exostoses. Huge exostosis is also found on the thoracal vertebras that could be caused by secondary kyphosis and scoliosis at the level of the thoracal and lumbar spine ${ }^{2}$ (Fig. 5e, 6a).

The diaphyses of the tibias and fibulas show signs inchoative periostitis.
Skeleton 2: the skull is not complete, with both new and old breakage. The frontal is missing the right lateral side, the left parietal is missing the posterior side, together with the left temporal and sphenoid. From the occipital bone only a small portion from right side is left (Fig. $\mathbf{6 c - d}$ ). The frontal process of the maxillae is broken, and the right body of the mandible is missing the ascending ramus.

| $\mathrm{M}^{3}$ | $\mathrm{M}^{2}$ | $\mathrm{M}^{1}$ | $\mathrm{Pm}^{4}$ | $\mathrm{Pm}^{3}$ | C | $\mathrm{I}^{2}$ | $\mathrm{I}^{1}$ | - | - | - | - | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $?$ | $\\ ) & \(\mathrm{M}_{1}$ | $\mathrm{Pm}_{4}$ | $\mathrm{Pm}_{3}$ | C | 1 | $\backslash$ | - | - | - | - | - | - | - | - |  |

For the DNA analysis, molars 1-3 from the right maxillary and molar 2 from the mandible were sampled.

The postcranial skeleton has both humeri without the proximal third; the femurs have broken metaphyses, only the left one has partial metaphysis and epiphysis. Only the right tibia is complete and the left one is missing the metaphyses. A metacarpal and three metatarsals (with distal epiphyses not fused) were also recovered.

Cranial features and the long bones show a female.
The age is about 14 years old (all the epiphyses are not fused, third molar is in the alveoli), the maximum length of the tibia being a little over the average measurements for the age of 14 .

Computed stature based on the maximum length of tibia is $139.28 \pm 9.7 \mathrm{~cm}$.

[^0]Pathology: on the right parietal there are traces of porosity near the lambdoid suture and on the right sphenoid, which indicate hyperostosa porotica and the orbital roofs exhibit cribra orbitalia (Fig. 6b).

Skeleton 3: represented only by a piece of the zygomatic process of the maxillary, the diaphysis of a femur with broken metaphyses, the distal third of the right tibia and a fragment from the left ischion. All these belong to a child (infans $I$ ).

These analyzed human bones show some interesting anthropological cases, and are very important for the understanding of the funeral and social practices of the Babadag culture. Almost all the bones exhibit breakages and have missing parts due to the archaeological excavations. However, the bones from S K II, square 4-5, $\mathbf{- 1 . 1 5} \mathbf{m}$ have many missing parts, ancient breakages, especially affecting the epiphyses of the long bones. For the other analyzed skeletons, whole bones are missing, and the recovered bones have missing parts mostly due to the archaeological excavations.

We have analyzed the osteological remains from at least nine individuals, five females, one male, and three with sex unknown. One aspect to be seen is that the estimated age at death for most of the skeletons can generally be placed in the infans II-adultus interval.

The pathology is also interesting in other two cases. Skeleton 1, female, from Square IV D shows a fusion of the lumbar vertebras L 3 and L 4, and big exostosis on L 5; traces of periostitis on the legs show an infection and the spine problems caused walking disabilities for this young individual (25-30 years old). Also, skeleton 2, male, from S VI, square 4-5, -1.20 m, exhibits a deformation of the humeral diaphysis and head, possible with congenital or traumatic cause. Hyperostosa porotica and cribra orbitalia have been identified for Skeleton 2, female, from Square IV D.

Skeleton 1, female, S VI, square 4-5, -1.20 m had a violent cause of death: on the left and, possible, right parietal and on the frontal there are some traces of blunt force trauma and no healing signs can be noticed on the bones. Skeleton 4, from S K II, square 4-5, -1.15 could have had the same cause of death: the anterior side of the cranium was exposed to fire when the skull was still complete.

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| Martin No./Dimensions and indices (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices (post-cranial skeleton) | Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | right | left |  | right | left |
| Humerus |  |  | Femur |  |  |
| 1. Max. length | - | 251 | 6. Sagittal mid-shaft diam. | 22.98 | 21.54 |
| 5. Max. diam. mid-shaft | 17.41 | 17.27 | 7. Transverse mid-shaft diam. | 19.60 | 19.55 |
| 6. Min. diam. mid-shaft | 13.73 | 13.58 | 8. Circum. of the mid-shaft | 66 | 64 |
| 7. Circum. of the mid-shaft | 48 | 48 | 9. Transv. diam. under lesser troch. | 26.47 | 25.75 |
| 7a. Min. circum. of the shaft | 51 | 51 | 10. Sagittal diam. under lesser troch. | 22.16 | 20.34 |
| 6:5. Section index | 78.86 | 78.63 | 15. Vert. diam. neck | 26.98 | - |
| Radius |  |  | 16. Sag. diam. neck | 21.67 | - |
| 1. Max. length | 192 | 194 | 17. Circum. of the neck | 51 | - |
| 3. Min. circum. | 37 | 35 | 6:7. Pilastric index | 117.24 | 110.17 |
| 4. Transverse shaft diam. | 12.62 | 13.32 | 10:9. Platimeric index | 83.71 | 78.99 |
| 5. Sagittal shaft diam. | 9.46 | 9.59 | Tibia |  |  |
| 5:4. Section index | 74.96 | 71.99 | 1. Max. length | 305 | - |
| Cubitus |  |  | 8. Sag. mid-shaft diam. | 24.49 | 24.76 |
| 3. Min. circum. | 29 | - | 8a. Sag. diam. at nutrient foramen | 24.08 | 28.26 |
| 11. Sagittal shaft diam. | 9.60 | - | 9. Transv. mid-shaft diam. | 19.51 | 18.99 |
| 12. Transverse shaft diam. | 13.66 | - | 9a. Transv. diam. at nutrient foramen | 19.13 | 19.69 |
| 11:12. Section index | 70.27 | - | 10b.Min. circum. | 65 | 64 |
|  |  |  | 9:8. Section index | 79.66 | 76.69 |
|  |  |  | 9a:8a. Cnemic index | 79.44 | 69.67 |

## S VI, carou 4-5, -1.20 m (skeleton 2)

| Martin No./Dimensions and indices (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices (post-cranial skeleton) | Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | right | left |  | right | left |
| Claviculă |  |  | Cubitus |  |  |
| 4. Vert. diam. | 9.31 | - | 1. Max. length | 199 | - |
| 5. Sag. diam. | 7.70 | - | 3. Min. circum. | 27 | - |
| 6. Circum. of the mid-shaft | 26 | - | 11. Sagittal shaft diam. | 9.25 | - |
| 4:5. Section index | 120.90 | - | 12. Transverse shaft diam. | 11.45 | - |
| Humerus |  |  | 11:12. Section index | 80.78 | - |
| 5. Max. diam. mid-shafl | 15.76 | 14.93 | Femur |  |  |
| 6. Min. diam. mid-shaft | 13.21 | 12.79 | 6. Sagittal mid-shaft diam. | - | 21.82 |
| 7. Circum. of the mid-shaft | 45 | 43 | 7. Transverse mid-shaft diam. | - | 17.84 |
| 7a. Min. circum. of the shaft | 48 | 45 | 8. Circum. of the mid-shaft | - | 63 |
| 6:5. Section index | 83.81 | 85.66 | 9. Transv. diam. under lesser troch. | - | 23.26 |
| Radius |  |  | 10. Sagittal diam. under lesser troch. | - | 18.87 |
| 1. Max. length | 175 | - | 15. Vert. diam. neck | - | 24.85 |
| 3. Min. circum. | 31 | 33 | 16. Sag. diam. neck | - | 22.33 |
| 4. Transverse shaft diam. | 11.58 | 11.88 | 17. Circum. of the neck |  | 77 |
| 5. Sagittal shaft diam. | 9.23 | 9.23 | 6:7. Pilastric index | - | 122.30 |
| 5:4. Section index | 79.70 | 77.69 | 10:9. Platimeric index | - | 81.12 |

## S K II, carou 4-5, -1.15 m (skeleton 1)

| Martin No./Dimensions and <br> indices (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices <br> (post-cranial skeleton) | Values |  |
| :--- | :---: | :--- | :--- | :---: | :---: |
|  | right | left |  | right | left |
| Cubitus |  |  | Femur |  |  |
| 11. Sagittal shaft diam. | - | 9 | 6. Sagittal mid-shaft diam. | 19 | - |
| 12. Transverse shaft diam. | - | 13 | 7. Transverse mid-shaft diam. | 14.5 | - |
| 11:12. Section index | - | 69.23 | 8. Circum. of the mid-shaft | 52 | - |
|  |  | 6:7. Pilastric index | 131.03 | - |  |

## S K II, carou 4-5, -1.15 m (skeleton 2)

| Martin No./Dimensions and <br> indices (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices <br> (post-cranial skeleton) | Values |  |
| :--- | :---: | :---: | :--- | :---: | :---: |
|  | right | left |  | right | left |
| Claviculă |  |  | Radius |  |  |
| 4. Vert. diam. | - | 11 | 4. Transverse shaft diam. | - | 15 |
| 5. Sag. diam. | - | 8 | 5. Sagittal shaft diam. | - | 20 |
| 6. Circum. of the mid-shaft | - | 33 | $5: 4$. Section index | - | 133.33 |
| 4:5. Section index |  | 137.5 |  |  |  |


| S K II, carou 4-5, -1.15 m (skeleton 3) |
| :--- |
| Martin No./Dimensions and <br> indices (cranial skeleton) Values <br> 10. co - co 122 <br> 27. arch b-1 130 <br> $28(1)$. arch 1-i 76 <br> 30. b-1 115 <br> $31(1) .1-\mathrm{i}$ 67 <br> I 24. (30:27) $\mathbf{8 8 , 4 6}$ |

## Caseta IV D (skeleton 1)

| Martin No./Dimensions and indices (cranial skeleton) | Values | Martin No./Dimensions and indices (cranial skeleton) | Values |
| :---: | :---: | :---: | :---: |
| 1.g-op | 170 | 30. b-1 | 100 |
| 3. $\mathrm{g}-1$ | 163 | 32(5). Fr. curvature angle | 134.78 |
| 3a. $\mathrm{n}-1$ | 163 | 33e. Par. curvature angle | 142,75 |
| 8. eu-eu | 127 | I 1. (8:1) | 74.70 |
| 9. $\mathrm{ft}-\mathrm{ft}$ | 96 | I 4. (20:1) | 62,94 |
| 10.co-co | 113 | I 5. (20:8) | 84.25 |
| $11 . \mathrm{au}-\mathrm{au}$ | 115 | I 12. (9:10) | 84.95 |
| 12. ast - ast | 101 | I 13. (9:8) | 75.59 |
| 20. po-b | 107 | I 14. (12:8) | 79.52 |
| 26. $\mathrm{n}-\mathrm{b}$ | 122 | I 16. (27:26) | 97.54 |
| 27. b-1 | 119 | I 22. (29:26) | 90.98 |
| 29. n-b | 111 | I 24. (30:27) | 84.03 |
| 29d. g-b | 107 |  |  |

## Caseta IV D (skeleton 1)

| Martin No./Dimensions and indices (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices (post-cranial skeleton) | Values |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | right | left |  | right | left |
| Femur |  |  | 9. Transv. mid-shaft diam. | 27.5 | - |
| 6. Sagittal mid-shaft diam. | 28 | 28 | 9a. Transv. diam. at nutrient foramen | 22 | - |
| 7. Transverse mid-shaft diam. | 27 | 25,5 | 10b.Min. circum. | - | 78 |
| 8. Circum. of the mid-shaft | 85 | 83 | 9:8. Section index | 85.93 | - |
| 9. Transv. diam. under lesser troch. | 30 | 30 | 9a:8a. Cnemic index | 61.11 | - |
| 10. Sagittal diam. under lesser troch. | 25 | 29 | Fibula |  |  |
| 6:7. Pilastric index | 103.70 | 109.80 | 2. Max. diam. mid-shaft | 13 | - |
| 10:9. Platimeric index | 83.33 | 96.63 | 3. Min. diam. mid-shaft | 10.5 | - |
| Tibie |  |  | 4. Circum. of the mid-shaft | 38 | - |
| 3. Breadth proximal ephipysis | 71.5 | - | 4a. Min. circum. | 33 | - |
| 6. Breadth distal ephipysis | - | 43.5 | Sacrum |  |  |
| 8. Sag. mid-shaft diam. | 32 | - | 5. Direct sup. breadth | 11 | - |
| 8a. Sag. diam. at nutrient foramen | 36 | - |  |  |  |

## Caseta IV D (skeleton 2)

| Martin No./Dimensions and indices <br> (post-cranial skeleton) | Values |
| :--- | :---: |
| $26 . \mathrm{n}-\mathrm{b}$ | 123 |
| $27 . \mathrm{b}-1$ | 89 |
| $29 . \mathrm{n}-\mathrm{b}$ | 105 |
| 29 b. arrow $\mathrm{n}-\mathrm{b}$ | 25,5 |
| $29 \mathrm{c} . \mathrm{n}$ - arrow | 44 |
| 30. $\mathrm{b}-\mathrm{l}$ | 82 |
| $32(5)$. Fr. curvature angle | 114.35 |
| 69. id-gn | 34 |

Caseta IV D (skeleton 2)

| Martin No./Dimensions and indices <br> (post-cranial skeleton) | Values |  | Martin No./Dimensions and indices <br> (post-cranial skeleton) |  | Values |  |
| :--- | :---: | :---: | :--- | :---: | :---: | :---: |
|  | right | left |  | right | left |  |
| Humerus |  |  | Tibie |  |  |  |
| 5. Max. diam. mid-shaft | 18.5 | 17 | 8. Sag. mid-shaft diam. | 25 | 24.5 |  |
| 6. Min. diam. mid-shaft | 14 | 14 | 8a. Sag. diam. at nutrient foramen | 27 | 26 |  |
| 7. Circum. of the mid-shaft | 49 | 49 | 9. Transv. mid-shaft diam. | 16 | 15.5 |  |
| 7a. Min. circum. of the shaft | 52 | 51 | 9a. Transv. diam. at nutrient foramen | 18 | 17.5 |  |
| 6:5. Section index | 75.67 | 82.35 | 10b.Min. circum. | 61 | 60 |  |
| Femur |  |  | 9:8. Section index | 64 | 63.26 |  |
| 6. Sagittal mid-shaft diam. | 21 | 21 | 9a:8a. Cnemic index | 66.66 | 67.30 |  |
| 7. Transverse mid-shaf diam. | 21 | 21.5 | Fibula |  |  |  |
| 8. Circum. of the mid-shaft | 65 | 66 | 2. Max. diam. mid-shaft | 13 | - |  |
| 9. Transv. diam. under lesser troch. | 26 | 26.5 | 3. Min. diam. mid-shaft | 9 | - |  |


| 10. Sagittal diam. under lesser troch. | 17 | 17.5 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $6: 7$. Pilastric index | 100 | 97.67 |  |  |  |
| $10: 9$. Platimeric index | 65.38 | 66.03 |  |  |  |

## Caseta IV D (skeleton 3)

| Martin No./Dimensions and indices <br> (post-cranial skeleton) | Values |  |
| :--- | :---: | :---: |
|  | right | left |
| Femur |  |  |
| 6. Sagittal mid-shaft diam. | - | 12.5 |
| 7. Transverse mid-shaft diam. | - | 14 |
| 8. Circum. of the mid-shaft | - | 43 |
| 6:7. Pilastric index | - | 89.28 |

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Aa

Bb


Fig. 1. Niculițel-Cornet, S VI, square 4-5, -1.20 m , Skeleton 1 - a. Lateral view; b. Superior view.

a

b


Cc

Fig. 2. Niculițel-Cornet, S VI, square 4-5, -1.20 m , a. Skeleton 1, anterior view; Skeleton 2 - b. Humerus, anterior view; c. Humerus, medial view.

a

b
Fig. 3. Niculițel-Cornet, S K II, square 4-5, -1.15 m, dwelling, Skeleton 3 - a. Lateral view; b. Superior view.

a


## cc



b

dd

cf

Fig. 4. Niculițel-Cornet, S VI, square 4-5, -1.20 m, Skeleton $2-\mathrm{a}$. Right humeral head; b. Proximal metaphysis of the right humerus. S K II, square 4-5, -1.15 m, dwelling, Skeleton 4 - c-e. Maxilla; f. Fragment of the frontal bone.


Fig. 5. Niculițel-Cornet, Square IV D, Skeleton 1-a. Anterior view; b. Posterior view; c. Lateral view; d. Superior view; e. L3-4 vertebras.


Fig. 6. Niculițel-Cornet, Square IV D, a. Skeleton 1, L3-4 vertebras; Skeleton 2 - b. Left orbit showing cribra orbitalia; c. Superior view; d. Lateral view.


[^0]:    ${ }^{1}$ Brothwell 1981, 72, fig. 3.9.
    ${ }^{2}$ Ortner 2003, 463-471.

